

Name:

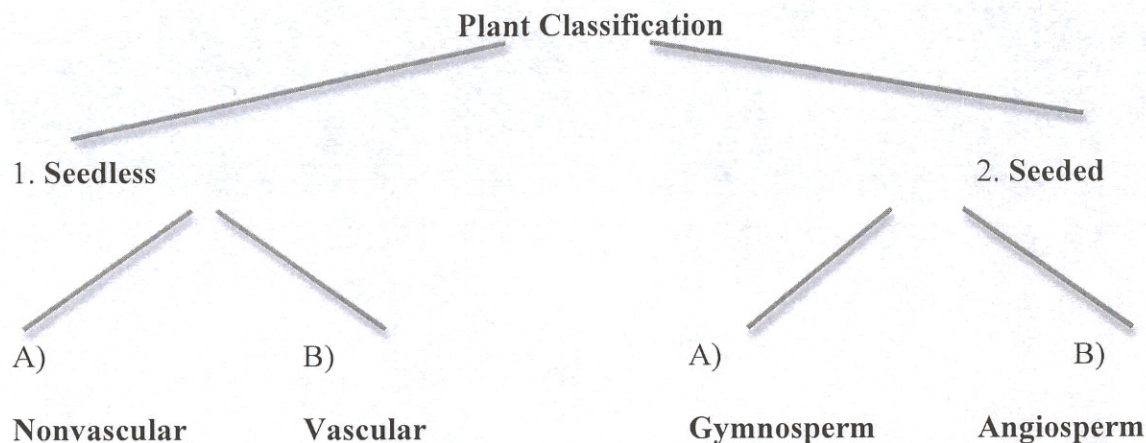
Date:

Period:

PLANTS KEY

General Plant Characteristics:

- ★ **producer** -- make their own food using **sunlight**
- ★ **chloroplast** -- place where **photosynthesis** takes place
- ★ Have **cuticle** -- waxy layer that coats the **leaf** exposed to **air**
- ★ Have **cell wall** -- outer layer surrounding cell membrane
- ★ Reproduce with **spores** and/or **sex** cells



Seedless, Nonvascular Plants:

- ♣ Mosses, liverworts, hornworts
- ♣ Lacks **vascular** tissue
- ♣ Reproduce by **spores**
- ♣ No roots, but **rhizoids** = holds plant in place
- ♣ Stalks and **leafy** items
- ♣ **Pioneer species**

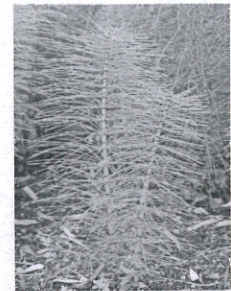


Types of Vascular Tissue:

1. Xylem = transports **water** from **roots** to plant
2. Phloem = transports **food (sugar)** throughout plant
3. Cambium = produces new **xylem** and **phloem** as plant **grows**

Seedless, Vascular Plants:

- ♣ Ferns, club mosses, horsetails, peat
- ♣ Have **vascular** tissue
- ♣ Have **roots, leaves, and stems**
- ♣ Reproduce by **spores**



Seeded Vascular Plants:

Gymnosperms

- Type = **needles or scale-like (conifers)**
- Produce 2 types of **cones**
- Seeds develop only on **female cone**

Angiosperms

- Type = **flowers**
- Monocot = **single** cotyledon (**grass**)
- Dicot = **double** cotyledon (**rose**)
- Cotyledon = “seed **leaf**” for **food** storage

Structures of Seed Plants:

1. Roots

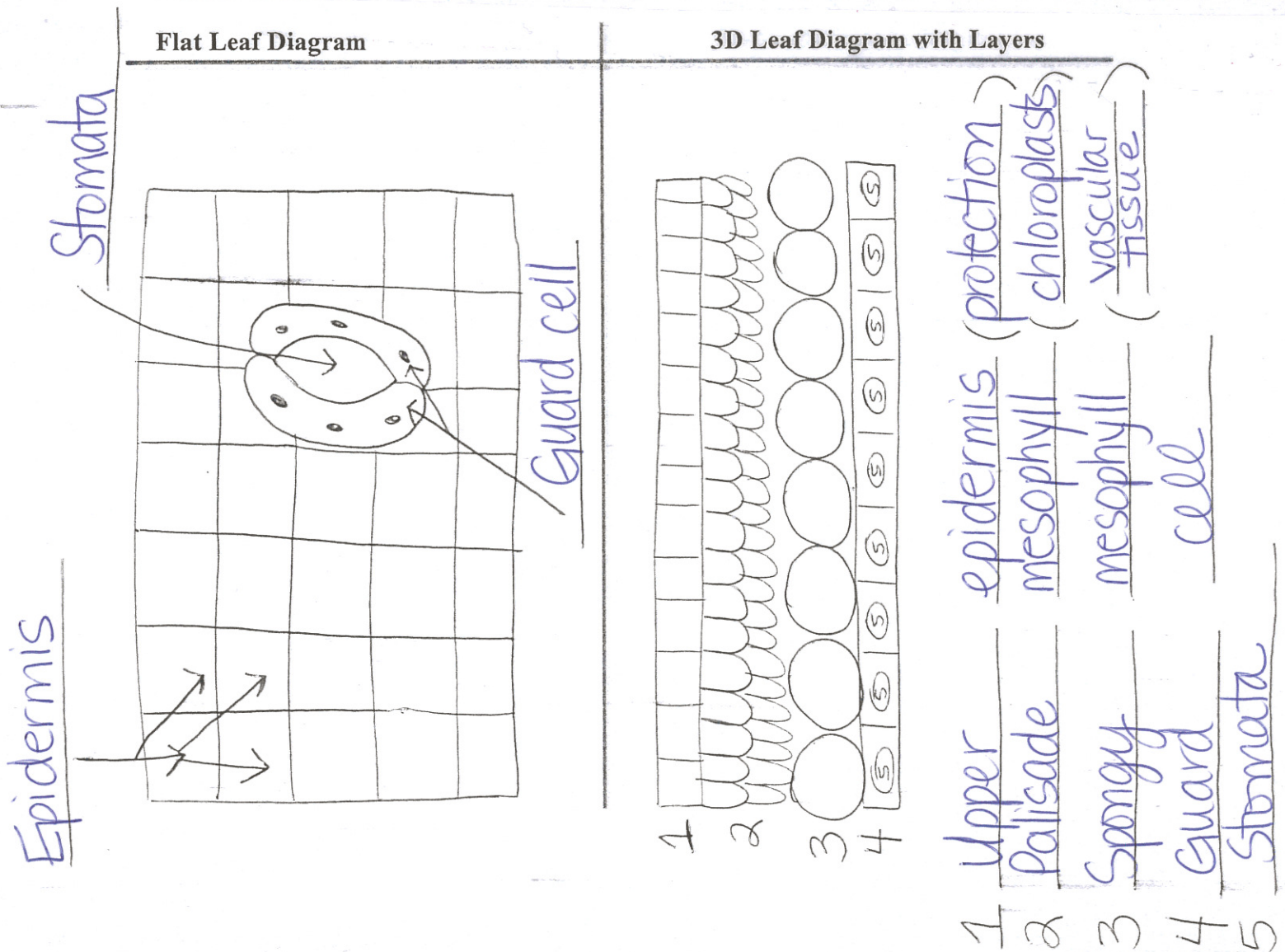
- supply **water** and **nutrients**
- support** and **anchor**
- store **extra food**

2. Stems

- Support** plant body
- Transport** and **store** materials

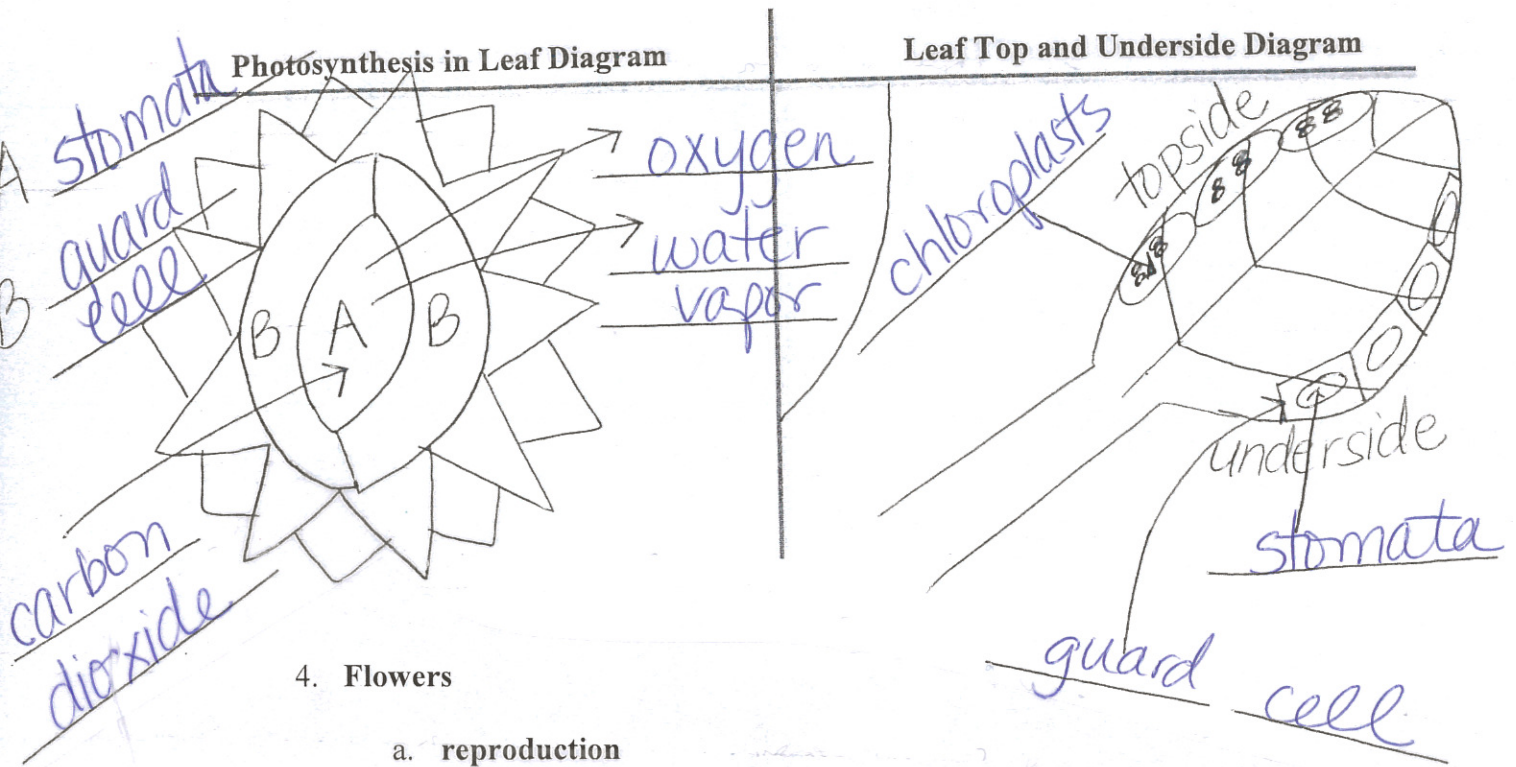
3. Leaves

- make **food** through **photosynthesis**



Photosynthesis:

- ♣ Formula = $6 \text{ H}_2\text{O} + 6 \text{ CO}_2 \xrightarrow{\text{sunlight/chlorophyll}} \text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{ O}_2$
- ♣ **Oxygen** and **water vapor** released through **stomata**
- ♣ **Carbon dioxide** and **water vapor** enter through stomata



4. Flowers

a. reproduction

